## PATENT ABSTRACTS OF JAPAN

(11)Publication number :

10-073501

(43) Date of publication of application: 17.03.1998

(51)Int.CI.

G01L 5/16 G01M 17/02

(21)Application number: 09-180133

(71)Applicant: BAYERISCHE MOTOREN WERKE

AG

(22)Date of filing:

04.07.1997

(72)Inventor: MAXIMILIAN KUCHLER

MEIER HUBERT NOHL FRIEDRICH

FERRUFINO-CAMACHO DAVID

**ALFRED** 

(30)Priority

Priority number : 96 19627385

Priority date: 06.07.1996

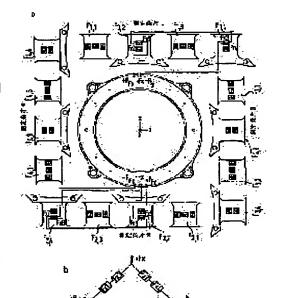
Priority country: DE

## (54) WHEEL MEASURING HUB

## (57)Abstract:

PROBLEM TO BE SOLVED: To obtain a wheel measuring hub by which all forces and all moments can be detected precisely without being influenced mutually and by which especially the speed of rotation of a wheel can be detected with high resolution by a method wherein strain gages are arranged, directed and connected in such a way that all the forces and all the moments can be detected via a shear stress generated when a load is applied.

SOLUTION: When a longitudinal force Fx is detected, eight strain gages are installed at the front and the rear of a measuring stripe piece 1 and a measuring stripe piece 2. When a wheel support force Fz is measured, eight strain gages are installed at the front and the rear of a measuring stripe piece 3 and a measuring stripe piece 4. When a side force Fy is measured, 16 strain gages are bonded to the left side and the right side in central parts of all measuring stripe pieces. When the signal of a camber moment Mx is recorded, the



measuring stripe pieces 1, 2 are used. Four strain gages are connected respectively to the left side and the right side of them, the measuring stripe pieces 3, 4 are applied to the measurement of a restoring moment Mz, and the signal of a braking and driving moment My is detected by 16 strain gages which are bonded to the front and the rear of all the measuring stripe pieces. The strain gages constitute respectively a Wheatstone bridge so as to stop a cross talk.

**LEGAL STATUS** 

## **BEST AVAILABLE COPY**

[Date of request for examination]

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]

Copyright (C); 1998,2003 Japan Patent Office